

Amendment to the Claims

1 (Currently Amended). A method for transmitting wireless communication signals, comprising:

forming MAC layer signals according to a DOCSIS protocol;

adding, at the MAC layer, an ARQ header to each of the MAC layer signals;

transmitting the MAC layer signals;

storing the MAC layer signals;

~~deleting a group of stored MAC layer signals~~ after a specified period has elapsed since receiving a negative-acknowledge signal, requesting an explicit acknowledgment from the receiver or deleting a group of stored MAC layer signals;

receiving the negative-acknowledge that identifies a packet data unit (PDU) and deleting a group of packet data units transmitted prior to the identified PDU in the ~~receiving~~ the negative-acknowledge; and

deleting stored MAC layer signals if the sequence number identified in the acknowledge signal does not correspond to a sequence number for a stored MAC layer signal.

2 (Original). The method of claim 1 wherein the step of adding an ARQ header includes adding a sequence number in the ARQ header.

3 (Original). The method of claim 2 further including storing transmitted frames until a negative acknowledge signal is received.

4 (Original). The method of claim 2 further including receiving a non-acknowledge signal from a receiver, the non-acknowledge signal including a previously transmitted sequence number.

5 (Original). The method of claim 4 further including deleting a group of stored MAC layer signals, the group of stored MAC layer signals being a function of a value of the previously transmitted sequence number.

6 (Original). The method of claim 5 wherein the group comprises all MAC layer signals transmitted prior to the MAC layer signal containing the previously transmitted sequence number.

7. Canceled.

8 (Original). The method of claim 4 further including retrieving a stored MAC layer signal that corresponds with the previously transmitted sequence number received in the acknowledge signal.

9 (Original). The method of claim 8 further including transmitting the stored MAC layer signal that corresponds with the previously transmitted sequence number received in the acknowledge signal.

10 (Original). The method of claim 9 further comprising deleting (flushing) all stored MAC layer signals that were transmitted prior to the stored MAC layer signal that corresponds with the previously transmitted sequence number received in the acknowledge signal.

11 (Original). The method of claim 4 further including determining whether the previously transmitted sequence number identified in the acknowledge signal is corresponds to a sequence number for a stored MAC layer signal.

12. Canceled.

13 (Currently Amended). A wireless transceiver for transmitting and receiving wireless communication signals, comprising:

a receiver portion that receives acknowledge signals transmitted by another device over a wireless medium; and

a transmitter portion, wherein the transmitter portion:

forms MAC layer signals according to a DOCSIS protocol;

adds, at the MAC layer, an ARQ header containing a sequence number to each of the MAC layer signals;

transmits the MAC layer signals;

stores the MAC layer signals;

~~deletes a group of stored MAC layer signals~~ after a specified period has elapsed since receiving a negative-acknowledge signal requests an explicit acknowledgment from the receiver or deletes a group of stored MAC layer signals;

receives the negative-acknowledge that identifies a packet data unit (PDU) and ~~deleting~~ deletes a group of packet data units transmitted prior the identified PDU ~~to receiving the negative-acknowledge;~~ and

deletes stored MAC layer signals if the sequence number identified in the acknowledge signal does not correspond to a sequence number for a stored MAC layer signal;

maintains three timers to track a maximum time a transmitter has to store a packet for retransmission, a flush time and a time a receiver must allow between each N-ACK; and

maintains two counters to track a maximum number of retries for transmitting a packet and to track a maximum number of retries for the explicit acknowledge message.

14 (Original). The wireless transceiver of claim 13 wherein the wireless transceiver stores transmitted frames until a negative acknowledge signal is received.

15 (Original). The wireless transceiver of claim 13 wherein the wireless transceiver receives and responds to an acknowledge signal from a receiver, the acknowledge signal including a previously transmitted sequence number.

16 (Original). The wireless transceiver of claim 15 wherein the wireless transceiver deletes a group of stored MAC layer signals, the group of stored MAC layer signals being a function of a value of the previously transmitted sequence number.

17 (Original). The wireless transceiver of claim 16 wherein the group comprises all MAC layer signals transmitted prior to the MAC layer signal containing the previously transmitted sequence number.

18. Canceled.

19 (Original). The wireless transceiver of claim 16 wherein the wireless transceiver retrieves a stored MAC layer signal that corresponds with the previously transmitted sequence number received in the acknowledge signal.

20 (Original). The wireless transceiver of claim 19 wherein the wireless transceiver transmits the stored MAC layer signal that corresponds with the previously transmitted sequence number received in the acknowledge signal.

21 (Original). The wireless transceiver of claim 20 wherein the wireless transceiver deletes all stored MAC layer signals that were transmitted prior to the stored MAC layer signal that corresponds with the previously transmitted sequence number received in the acknowledge signal.

22 (Original). The wireless transceiver of claim 16 wherein the wireless transceiver determines whether the previously transmitted sequence number identified in the acknowledge signal is corresponds to a sequence number for a stored MAC layer signal.

23. Canceled.

24 (Currently Amended). A fixed wireless device, comprising:

means for communicating over a wireless physical layer;

means for communicating over a DOCSIS MAC layer;

means for embedding an ARQ protocol in said DOCSIS MAC layer; [[and]]

means for deleting a group of stored MAC layer signals after a specified period has elapsed since receiving a negative-acknowledge signal; ~~and~~

means for receiving the negative-acknowledge and deleting a group of packet data units transmitted prior to a packet data unit identified in ~~receiving~~ the negative-acknowledge;

means for maintaining three timers to track a maximum time a transmitter has to store a packet for retransmission, a flush time and a time a receiver must allow between each N-ACK;  
and

means for maintaining two counters to track a maximum number of retries for transmitting a packet and to track a maximum number of retries for the explicit acknowledge message..

25 (Original). The fixed wireless device of claim 24 wherein the means for communicating includes a receiver portion that receives non-acknowledge signals transmitted by another device over a wireless medium and a transmitter portion, wherein the transmitter portion:

forms MAC layer signals according to a DOCSIS protocol;

adds, at the MAC layer, an ARQ header containing a sequence number to each of the MAC layer signals;

transmits the MAC layer signals;

stores the MAC layer signals; and

deletes at least one stored MAC layer signal.

26 (Original). The fixed wireless device of claim 25 wherein the fixed wireless device stores transmitted frames until either a non-acknowledge signal is received or a timer expires.